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**CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT AND REMEDIAL
INVESTIGATION/FEASIBILITY STUDY MONTHLY PROGRESS REPORT
FOR JANUARY 1995**

02/17/95

DOE-0584-95
DOE-FN EPAS
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REPORT

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Department of Energy
Fernald Environmental Management Project
P. O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 648-3155

FEB 17 1995

DOE-0584-95

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HRE-8J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/FEDERAL FACILITY
AGREEMENT AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY MONTHLY PROGRESS REPORT
FOR JANUARY 1995**

Enclosure 1 is the consolidated CA/FFCA/FFA and RI/FS Monthly Progress Report which describes the activities accomplished January 1-31, 1995, and planned actions for the period of February 1995. Also, enclosed are diskettes containing Lotus 1-2-3 (Version 2.2) data files of the K-65 hourly data (see Enclosure 2).

If you or your staff should have any questions, please contact me at
(513) 648-3107.

Sincerely,

Kandi Allen

for

Jack R. Craig
Fernald Remedial Action
Project Manager

Enclosures: As Stated

cc w/enc:

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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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Introduction

The Consent Agreement (CA) As Amended under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Sections 120 and 106(a), the Federal Facility Compliance Agreement (FFCA), and the Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (FFA-CARE) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (U.S. EPA) signed September 20, 1991, July 18, 1986, and November 19, 1991, respectively, require that monthly reports be submitted to the U.S. EPA regarding progress made to meet the provisions of those agreements. This report fulfills those requirements by describing actions undertaken at the Fernald Environmental Management Project (FEMP) during the period January 1 through January 31, 1995, and planned actions for the period February 1 through February 28, 1995.

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WORK ASSIGNMENTS AND PROGRESS

Descriptions of work progress are presented in the following sections and/or enclosures to this report:

- CA Section IX - Removal Actions
- CA Section X - Remedial Investigation/Feasibility Study
- Enclosure A - Waste Water Flows and Radionuclide Concentrations under CA Section XXIII.B
- Enclosure B - FFCA: Initial Remedial Measures and Other Open Actions
- Enclosure C - FFA: Control and Abatement of Radon-222 Emissions
- Enclosure D - Effluent Radiation Discharges to the Great Miami River

CA Section IX. Removal Actions

This section provides an update of activities associated with the implementation of Removal Actions (RAs) at the FEMP during January 1995. Information is presented for each of the Removal Actions identified in the Consent Agreement As Amended.

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REMOVAL ACTION SUMMARY

NO.	TITLE	SCOPE	STATUS
Phase I			
1	Contaminated Water Under FEMP Buildings	Pump water from extraction wells underneath Plants 2/3, 6, 8, and 9. Treat extracted water for volatile organic chemicals and uranium removal before discharge.	Plants 2/3 & 6 Operational Plant 8 Temp. Inoperable
2	Waste Pit Area Run-off Control	Collect and treat contaminated storm water run-off from the waste pit area.	Operational: 7/30/92 Operation Ongoing
3	South Groundwater Contamination Plume	Part 1 - Install new alternate water supply and transfer to industrial user.	Operational: 12/7/92 Operation Ongoing
		Part 2 - Pump and discharge groundwater from South Plume.	Operational: 8/27/93 Operation RW 5 offline indefinitely
		Part 3 - Install and operate Interim Advanced Waste Water Treatment system to reduce uranium contaminant loading to the Great Miami River.	Operational: 7/30/92 Operation Ongoing
		Part 4 - Conduct groundwater monitoring and institutional controls by sampling private and existing RVFS wells in the South Plume area and installing homeowner treatment systems.	Ongoing
		Part 5 - Conduct groundwater modeling and geochemical investigating to define the extent of the groundwater plume contaminated with uranium.	Completed: 2/25/94
		OU 2 Dispute Resolution Supplemental Project - Provide for partial treatment of the South Plume discharge to further reduce uranium flow to the Great Miami River.	Operational: 3/31/94 Operation Ongoing
4	Silos 1 & 2	Install bentonite cap to reduce and monitor radon emissions. Provide follow-on monitoring.	Cap Completed: 11/28/91 Monitoring: Ongoing

* Shading denotes completed actions

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NO.	TITLE	SCOPE	STATUS
5	Decant Sump Tank	Periodically remove liquid from K-65 decant sump tank.	Ongoing
6	Waste Pit 6 Residues	Eliminate potential airborne contamination by resubmerging exposed pit material.	Completed: 12/19/90
7	Plant 1 Pad Continuing Release	Stage I - Implement run-on/off control measures.	Completed: 1/17/92
		Stage II - Install new pad.	Completed: 12/4/92
		Stage III - Upgrade existing Plant 1 Storage Pad	Ongoing
Phase II			
8	Inactive Flyash Pile Control	Install plastic chain-link barrier and post warning signs.	Completed: 12/23/91
9	Removal of Waste Inventories	Disposition of low-level waste off-site.	Ongoing
10	Active Flyash Pile Controls	Phase I - Complete interim surface stabilization.	Completed: 6/29/92
		Phase II - Complete active flyash pile controls.	Maintenance: Ongoing
11	Pit 5 - Experimental Treatment Facility	Remove contents, structure, and filter material. Backfill and cap with clay cover.	Completed: 3/20/92
12	Safe Shutdown	Remove uranium and other material from former processing equipment and ship material and equipment off-site.	Ongoing
13	Plant 1 Ore Silos	Dismantle fourteen ore silos and their support structures.	Completed: 12/18/94
14	Contaminated Soil Adjacent to Sewage Treatment Plant Incinerator	Isolate or remove and dispose of contaminated soils from the vicinity of the sewage treatment plant.	Final Report Submitted 11/18/94
15	Scrap Metal Piles	Phase I - Disposition LLW ferrous/non-ferrous scrap metal	Ongoing
		Phase II - IIA - Containerization of scrap copper	Completed: 9/29/92
		IIB - Disposition of scrap copper	Ongoing
16	Collect Uncontrolled Production Area Run-off - Northeast	Collect storm water run-off from the northeast perimeter of the former production area in the Storm Water Retention Basin.	Completed: 8/20/93

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REMOVAL ACTION SUMMARY

NO.	TITLE	SCOPE	STATUS
17	Improved Storage of Soil and Debris	Improve storage of existing and future generated soils and debris.	Ongoing
18	Control Exposed Material in Pit 5	Eliminate potential airborne contamination by re-submerging exposed pit material.	Completed: 6/30/93
Phase III			
19	Plant 7 Dismantling	Dismantle and dispose of the Plant 7 structure.	Completed: 12/94
20	Stabilization of UNH Inventories	Neutralize, filter and package UNH inventory.	Ongoing
21	Expedited Silo 3	Mitigate the potential release of hazardous waste material by covering and sealing dust collector hopper, removing dust collector, and capping and covering obvious release pathways.	Completed: 2/24/93
22	Waste Pit Area Containment Improvement	Stabilize south berm of Pit 4; regrade drainage ditches along Pits 3, 4, 5, and 6; and resurface road between Pits 3, 4, 5, and 6.	Completed: 7/30/93
23	Inactive Flyash Pile	Conduct field investigation to identify locations requiring material removal.	Completed: 4/30/92
24	Pilot Plant Sump	Remove liquid and sludge from the sump.	Completed: 10/15/93
25	Nitric Acid Tank Car and Surrounding Area	Remove residual contents from tank car and decontaminate and dispose of tank car.	Completed: 10/11/93
26	Asbestos Removals (Asbestos Program)	Mitigate the potential for contaminant and migration of asbestos fibers.	Ongoing
27	Management of Contaminated Structures at the FEMP	Submit an Engineering Evaluation/Cost Analysis for managing contaminated structures. Identify alternatives for managing contaminated structures.	Final EE/CA Approved 6/16/93
28	Contamination at the Fire Training Facility	Remove, decontaminate, dispose, treat or store contaminated structures, equipment, and soil from the former Fire Training Facility.	Ongoing
29	Erosion Control at Inactive Flyash Pile	Mitigate the threat of erosion induced slope failure and discharge of flyash to Paddy's Run.	Final Report Submitted to DOE 2/94 Maintenance: Ongoing
31	Seepage Control at the South Field and Inactive Flyash Pile	Minimize future groundwater contamination by intercepting contaminated seeps that drain from the South Field and Inactive Flyash Pile and infiltrate to the GMA.	Ongoing

*Shading denotes completed actions

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Removal Actions

RA No. 1, Contaminated Water Under FEMP Buildings

Current Month:

Nothing to report.

Planned Activities:

- Complete corrective maintenance and reestablish operations of Plants 2/3, 8, and 9 perched groundwater extraction wells.

RA No. 3, South Groundwater Contamination Plume

Part 1 - Alternate Water Supply

Current Month:

The U.S. Army Corps of Engineers, through an Interagency Agreement (IA), is proceeding with obtaining the necessary documents to transfer easement rights to Albright and Wilson Americas (A&W).

The letter/agreement to Delta Steel addressing the issue of the FEMP providing bottled water services until the Public Water Supply is completed was reviewed in January but has not been finalized.

The contractor for Project A of the PWS verified tie-in requirements at the Bolton Plant and is presently awaiting pipe delivery.

Cultural resource efforts on Project B, including reports and data recovery, are ongoing in conjunction with the installation of the Public Water Supply. Weather conditions and additional data recovery precluded completion in January.

Planned Activities:

- Continue proceedings to transfer ownership of the pumping and piping equipment as well as the easement rights to Albright and Wilson in accordance with the agreement of 1990.
- Continue to support Hamilton County Department of Public Works (HCDPW) on installation of the entire PWS including service connections.
- Provide cultural resource monitoring during construction of Project A.
- Complete cultural resources efforts for area in Project B along State Route 128.
- Prepare requisition or agreement for Delta Steel regarding the requested bottled water service.
- Attend public hearing for Project B of the PWS hosted by HCDPW at the Crosby School held on February 8, 1995.

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Removal Actions

RA No. 3, South Groundwater Contamination Plume (continued)

Part 2 - Pumping and Discharge System

Current Month:

The South Plume Recovery Well Field was placed back into full operation on January 24 following pump replacement and well maintenance activities. Recovery Wells (RW) 1 - 4 are pumping a combined rate of 1400 gpm. RWs 1 and 3 are operating on a temporary basis until new wells can be drilled at these locations. The well replacement action was initiated in response to well damage identified in RWs 1 and 3 during pump replacement. The root cause of the well damage is being investigated through a design review. RW 5 has been taken out of service since it is not needed to effectively capture the South Plume.

Part 3 - Interim Advanced Waste Water Treatment (IAWWT)

IAWWT Storm Water Retention Basin (SWRB) Unit

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate IAWWT(SWRB).

IAWWT Biotenitrification Effluent Treatment System (BDN-ETS) Unit

Current Month:

Nothing to report.

Planned Activities:

- Continue to operate IAWWT(BDN-ETS) unit.

Part 4 - Groundwater Monitoring and Institution Controls

Current Month:

Nothing to report.

Planned Activities:

- Continue to monitor performance of the ion exchange systems in use at private residences.

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Removal Actions

Operable Unit 2 Dispute Resolution Supplemental Project (Uranium Reduction in FEMP Discharge)

Step 1

Current Month:

Nothing to report.

Planned Activities:

- Continue full operation of the system.

Step 2

Current Month:

The off-peak capacity became available when Phase I of the Advanced Waste Water Treatment (AWWT) facility began to operate on January 31, 1995. This completed activities necessary to meet the scheduled date of January 31, 1995, shown in "Addendum No. 1 to the South Groundwater Contamination Plume Removal Action, Parts 2 and 3 Work Plan."

Planned Activities:

- Continue operation of the system.

Step 3

Current Month:

In January, continued systems operability testing of instruments and controls in the portion of the new pipeline going to the AWWT Phase II equalization tanks. Elimination of low uranium concentration streams was accomplished by startup of the AWWT facility on January 31, 1995. This completed activities necessary to meet the scheduled date of January 31, 1995, shown in "Addendum No. 1 to the South Groundwater Contamination Plume Removal Action, Parts 2 and 3 Work Plan."

Planned Activities:

- Continue systems operability testing of instrumentation and controls in the portion of the new pipeline going to the Phase II equalization tanks in preparation for turnover of the system to Operations in February 1995.

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Operable Unit 2 Dispute Resolution Supplemental Project (Uranium Reduction in FEMP Discharge) (continued)

Step 4

Current Month:

Nothing to report.

Planned Activities:

- Conversion of the IAWWT(SWRB) to South Plume groundwater treatment is scheduled to be accomplished between January and March 1995.

RA No. 7, Plant 1 Pad Continuing Release

Current Month:

The repair process of the expansion joint material (weather permitting) will continue after an engineering evaluation of the repair is completed. The completion of the evaluation is anticipated by the end of February 1995. The Final Report was submitted internally on December 16, 1994 for transmittal to U.S. EPA expected on February 21, 1995.

Planned Activities:

- Complete the repair (weather permitting) of the expansion joint material.

KEY MILESTONES	STATUS	DUE DATE
Complete Resurfacing of Phase III pad	Completed	September 30, 1994
Issue Final Report to EPA	On Schedule	February 21, 1995

RA No. 9, Removal of Waste Inventories

Current Month:

The volume of waste shipped off-site in January 1995 was 4,669 drum equivalents (DEs) for a total of 18,528 DEs shipped to the NTS in FY-95. This volume includes 5,038 drums of residues removed from inventory and shipped to-date.

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Removal Actions

RA No. 9, Removal of Waste Inventories (continued)

The FY 1995 volume shipped to the NTS is 6,741 DEs behind schedule; however, the schedule slippage has been reduced by 10% based upon comparison with December 1994 data. Reduction of schedule slippage is primarily due to release of ISO and large metal box shipments of process area scrap, trash, and construction materials. Additional reduction of schedule slippage is anticipated in February 1995, since approximately 6,300 DEs of Plant 7 demolition debris must be shipped from the FEMP by February 15. Lastly, an additional 5,100 DEs of construction waste is being held pending development of a compaction plan. The compaction plan will reduce the volume of material shipped for disposal by 3,570 DEs.

Shipment of residue materials under waste stream ONLO-000000006 was discontinued on January 4, 1995, subsequent to NTS receiving a leaking white metal box. A corrective action plan to address root and secondary causes associated with this incident was developed and implemented. On January 18 - 19, NTS conducted a surveillance of residue shipment packaging operations and FEMP corrective actions. Based on the status of FEMP corrective actions, NTS provided verbal approval to lift the FEMP self-imposed ban on residue shipments. Shipment of residue materials resumed on January 30, 1995.

The volume of low-level waste materials shipped in FY-95 per waste stream is as follows:

<u>Waste Stream</u>	<u>DEs Shipped to Date</u>
Process Area Scrap	3,769.76
Thorium	775.72
Residues to NTS	3,815.16
Contaminated Trash	729.20
SEG Residues	2,095.40
Construction (Legacy)	1,986.78
Construction (Newly Generated)	5,355.38

Planned Activities:

- During February 1995, the FEMP intends to ship an additional 6,300 DEs of low-level waste to NTS in support of OU 3's milestone of dispositioning Plant 7 demolition debris by February 15, 1995. The FEMP will continue to ship legacy waste materials in conjunction with Plant 7 disposition materials.

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Removal Actions

RA No. 12, Safe Shutdown

Current Month:

Preparation of implementation plans for Safe Shutdown activities, including Hazardous Waste Management Unit (HWMU) closures, continues with emphasis on the work in Plant 1.

The implementation plan for Plant 4 has been completed and the work is ongoing. The approach is to start on the fourth floor and work down and out the building. All reactor screws have been removed and are being size-reduced. Only two pieces of miscellaneous equipment remain on the east side reactor banks, and those are scheduled for removal the first week in February. NDA mapping of hold-up in ductwork is complete. Due to manpower changes brought about by the rebidding process (36% of HAZWATS in Safe Shutdown were new to the program in January) the work crews have been working overtime to minimize the impact.

The start date for Plant 1 has been impacted by the manpower changes. The relocation of the Materials Control and Accountability clerks from Plant 1 to the NAR Building was completed on Friday, January 27. Removal plans, permits, and rigging approval are being finalized for removal of the Halon containers on the Titan Mill. Sixty-four (64) task orders are awaiting critical safety analysis.

The following is the status of capital equipment: of an estimated 1,907 items, 1,225 have been or will be excessed, and 682 have been identified as "In Use/Future Use" items.

To-date, 1,316 maintenance work orders to isolate and disconnect all utilities/energy sources from equipment not in use have been prepared. Of these, 804 have been completed.

To-date, 299 task orders to remove the hold-up material from equipment have been prepared; of those, 112 have been completed.

A load of derbies was shipped to Manufacturing Sciences Corporation on January 23, 1995. Total shipped to-date is 158 metric tons uranium weight (MTU) of 440 MTU to be shipped.

A meeting was held on January 24 with representatives from AlliedSignal, the private sector company that is interested in the FEMP's normal materials. Their immediate interest is in the normal UF₄ and UO₃, with potential future interest in metal. The FEMP continues to work with them to respond to their questions regarding these materials.

Planned Activities:

- Continue to issue task orders to identify and/or remove hold-up materials from process equipment.
- Continue verification of the equipment in Plants 2 and 3 Refinery.
- Continue to prepare implementation packages and obtain appropriate approvals.

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RA No. 12, Safe Shutdown (continued)

- Continue shipping depleted derbies to MSC in Oak Ridge, Tennessee.
- Continue the removal of Plants 5 and 6 equipment to be used in the OU 4 Pilot Plant vitrification project.
- Continue to pursue other government interest in FEMP process equipment and nuclear materials.

RA No. 13, Plant 1 Ore Silos

Current Month:

Preparation of the Final Report has begun. The Final Report is scheduled to be submitted internally on May 30, 1995 for transmittal to U.S. EPA/Ohio EPA by December 19, 1995.

Planned Activities:

- Continue preparation of the Final Report.

KEY MILESTONES	STATUS	DUE DATE
Complete Removal Action	Completed	December 19, 1994

RA No. 14, Contaminated Soils Adjacent to Sewage Treatment Plant Incinerator (STPI)

Current Month:

Comments on the Final Report were received from U.S. EPA on January 6, 1995. Eight specific comments, both editorial and technical, were addressed. The revised Final Report will be submitted to U.S. EPA on February 2, 1995.

Planned Activities:

- None to report - Removal Action complete.

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Removal Actions

RA No. 15, Scrap Metal Piles

Current Month:

Phase I: None to report.

Phase II: Funding has been obtained for treatability testing for decontaminating the copper. A Statement of Work (SOW) is being developed for a treatability test to demonstrate a process for decontamination of copper.

Planned Activities:

- Phase I: Final disposition of the 84 remaining oxide boxes is delayed until February 28, 1995 due to sampling and analysis of the stabilized waste. Confirmatory sampling of the treated slag and two oxide boxes will begin upon completion of stabilization by SEG.
- Phase II: Determine path forward for project since it is not currently baselined.

KEY MILESTONES	STATUS	DUE DATE
Phase I - On-Site Processing Off-Site Processing	Completed Completed	Sept. 30, 1993 March 25, 1994
Phase I - Submit draft Final Report to U.S. EPA	Completed	October 4, 1994
Phase IIB: Submittal of Subcontractor's Removal Action Project Plan	On hold until funding is available	Sept. 30, 1993
Phase IIB: Submittal of Final Report	On hold until funding is available	March 30, 1995

RA No. 17, Improved Storage of Soil and Debris

Current Month:

January activities included completion of the size reduction and stockpiling of concrete to the east side of pile north of Third Street. Continued and essentially completed compaction and grading of soil on the west side of the pile (no further compaction/grading will be performed until the trench has been built around base of pile). Placed the concrete foundation (floor) of the catch basin located on the east side of pile which is the termination point of the drainage trench that will be installed around the perimeter base of the pile. Formwork was being assembled (including rebar configuration) in the shop in preparation for the installation of the drainage trench to begin in February.

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RA No. 17, Improved Storage of Soil and Debris (continued)

The first residue/debris was removed and containerized on the former Scrap Metal Pad (SMP) area on January 13, 1995. The removal and containerization of this residue/debris is the only remaining scope (as part of the RA 17 scope) for this SMP area. Extreme weather conditions and scheduling problems with Equipment Operators' training inhibited this work for January.

Planned Activities:

- Begin placement of concrete curb and gutter (trench drain system) around the perimeter base of Soil and Rubble Pile.
- Continue containerization and removal of the remaining debris/residue at the Scrap Metal Pad as weather permits.

RA No. 20, Stabilization of UNH Inventories

Current Month:

Weekly telephone conferences between Ohio EPA, DOE-HQ, DOE-OH, DOE-FN, FERMCO, and the Defense Nuclear Safety Board (DNFSB) occurred on a regular basis throughout the month of January. These calls keep all parties aware of project events.

The System Operability Testing (SOT) was completed.

The engineering design review team formed to evaluate the piping joint which failed on December 28, 1994, and other issues which surfaced during start-up testing, continued its efforts throughout the month of January. The team prepared and presented an overview of its initial findings on January 20. A meeting was held with the U.S. and Ohio EPAs on January 26 where each design review issue, finding, path forward, and current status was explained.

Planned Activities:

- Complete engineering design review and issue the draft report.

RA No. 26, Asbestos Removals (Asbestos Program)

Current Month:

The Water Treatment Building abatement of water lines continues. The removal has been completed in front of all the filters. Asbestos floor tile removal for the Security Building was completed January 12, 1995. Building 55 slag recycling was completed January 26, 1995, taking only three weeks. Building 38 propane storage abatement started January 23, 1995, and is estimated to be completed the week of February 6, 1995.

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RA No. 26, Asbestos Removals (Asbestos Program) (continued)

Planned Activities:

- Compilation of work packages continues.
- Complete Building 38 propane storage abatement the week of February 6, 1995.

RA No. 28, Contamination at the Fire Training Facility

Current Month:

Preparation of the Final Report for this removal action has begun. Analytical data are being assembled into packages for review. A map showing sample point locations and grid co-ordinates is being prepared. Final excavation of the asphalt pad is on hold until resolution of the free release issues associated with the building debris.

Planned Activities:

- Continue to work free release issues relative to the building debris.
- Continue work on the final report.

RA No. 31, Seepage Control at the South Field and Inactive Flyash Pile

NOTE: This Removal Action was earlier reported as number 30. A letter from the U.S. EPA has surfaced which shows the KC-2 Warehouse/Well No. 67 had previously used the same removal action number. Number 31 will now be used for this removal action.

Current Month:

A statement of work for design services was provided to PARSONS on December 15, 1994, and they have submitted a project order plan for the design. The plan is presently being reviewed. A revised work plan was submitted to EPA on January 20, 1995. Awaiting comments from EPA on the document.

Planned Activities for February:

- Negotiate design services with Parsons.
- Initiate design of Seepage Control

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RA No. 31, Seepage Control at the South Field and Inactive Flyash Pile (continued)

KEY MILESTONES	STATUS	DUE DATE
Submit RSE	Completed	October 11, 1994
Submit work plan to DOE	Completed	December 22, 1994
Submit work plan to EPA	Completed	January 20, 1995
Complete Removal Action	Work plan in progress	October 17, 1995

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Remedial Investigations/Feasibility Studies

1.0 Operable Unit 1

Operable Unit 1 (OU 1), as defined in the Amended Consent Agreement, includes Waste Pits 1 - 6, Clearwell, Burn Pit, berms, liners, and soil within the operable unit boundary.

1.1 RI/FS Work Plan

Status:

Complete.

1.2 Remedial Investigation

Status:

Complete.

OPERABLE UNIT 1 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Details the nature and extent of contaminants within the OU 1 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	10/4/93 A	12/20/93 A	02/04/94 A

C = Consent Agreement Date

A = Actual

* = Request for extension

1.3 Feasibility Study/Proposed Plan

Status:

Complete.

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1.3 Feasibility Study/Proposed Plan (continued)

OPERABLE UNIT 1 FEASIBILITY STUDY/PROPOSED PLAN

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Describes and analyzes potential remedial alternatives. A comparative analysis is performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	03/04/94 A	06/01/94 A	07/01/94 A

C = Consent Agreement Date

A = Actual

1.4 Treatability Studies

Status:

Wet excavation, Phase II of the Dewatering and Excavation Evaluation Program (DEEP), is scheduled to begin February 1, 1995. The readiness assessment, with notification to proceed, was completed on January 31, 1995. Excavation of the four trenches will start February 1, 1995, and is scheduled to be completed February 9, 1995.

Issues/Corrective Actions:

None to report.

1.5 Record of Decision

Status:

U.S. EPA approval of the Draft OU 1 Proposed Record of Decision was received December 27, 1994. Responses to comments were drafted and transmitted to U.S. EPA and Ohio EPA on January 13, 1995, for review. Based on feedback obtained from U.S. EPA and Ohio EPA on the draft comment responses, the ROD was finalized and signed by DOE on January 24, 1995. The Final OU 1 ROD and the final comment response package were then transmitted on January 25, 1995, to U.S. EPA and Ohio EPA for review and approval.

Issues/Corrective Actions:

None to report.

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1.6 RD/RA Work Plan

The Remedial Design Work Plan identifies and defines the activities required to develop the final construction plans, specifications, and bid documents for the implementation of the selected remedy described in the OU 1 Record of Decision. The Remedial Action Work Plan provides the basis for implementation of the Remedial Design Work Plan and includes, but is not limited to, the following: Safety & Analysis Plan, Quality Assurance Project Plan, Health & Safety Plan, Operations & Maintenance Plan, and a plan for satisfying permitting requirements.

Status:

Within 60 days of finalization of the OU 1 Record of Decision, a Remedial Design Work Plan must be submitted to U.S. EPA.

Issues/Corrective Actions:

None to report.

1.7 Planned Activities for February 1995

- Begin Phase II of the DEEP project, wet excavation, February 1, 1995.
- A Public Availability Session on the RD/RA Process is tentatively scheduled for February 21, 1995.
- Submit Draft RD Work Plan to DOE.

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2.0 Operable Unit 2

Operable Unit 2 (OU 2), as defined in the Amended Consent Agreement, includes the Flyash Piles, other South Field disposal areas, Lime Sludge Ponds, Solid Waste Landfill, berms, liners, and soil within the operable unit boundary.

2.1 RI/FS Work Plan Addendum

Status:

Complete.

2.1.1 RI Field Investigation

Status:

Complete.

2.2 Remedial Investigation

Status:

U.S. EPA approval of the Operable Unit 2 Remedial Investigation Report (RI) was received on December 22, 1994. The Final RI report was submitted to the EPA on January 20, 1995.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 2 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIV E FROM EPA	FINAL DUE DATE TO EPA	ACTUAL DATE SUBMITTED
Details the nature and extent of contaminants within the OU 2 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	2/18/94 C	4/22/94	1/21/95	1/20/95

C = Consent Agreement Date

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2.3 Feasibility Study/Proposed Plan

Status:

The Feasibility Study/Proposed Plan (FS/PP) was conditionally approved by U.S. EPA on October 5, 1994. The FS/PP was revised based on the EPA's comments of the October 5, submittal. Responses, actions, and changed pages were incorporated and resubmitted on November 17, 1994. A formal approval letter from the U.S. EPA was received on January 30, 1995. The deliverable date for the final version of the FS Report is March 1, 1995.

Issues/Corrective Actions:

None to report.

Planned activities for February

- Preparation of the Final OU 2 Feasibility Study Report.

OPERABLE UNIT 2 FEASIBILITY STUDY/PP REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT DRAFT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA DRAFT FINAL	SUBMIT FINAL TO EPA
Describes and analyzes potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	4/29/94 C	7/5/94 C	8/24/94 C	3/1/95

C = Consent Agreement Date

2.4 Treatability Studies

Status:

None to report.

Issues/Corrective Actions:

None to report.

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2.5 RD/RA Work Plan

Status:

Work is being rescheduled to begin in 1995 consistent with plans for the sitewide disposal facility.

2.6 Record of Decision

Status:

The revised Draft Record of Decision (ROD) was submitted to DOE on December 13, 1994. The public comment period started October 26, 1994 and was scheduled to end November 25, 1994. However, the public twice requested additional time to comment and the comment period was extended first to December 30, 1994 and then to January 20, 1995. The Draft Responsiveness Summary was originally scheduled to be submitted on December 13, 1994. However, due to the public comment period extensions, the Draft Responsiveness Summary was submitted on January 13, 1994. The comment period extensions also necessitated an amendment to the Consent Agreement, which changed the submittal of the ROD with Responsiveness Summary to U.S. EPA from January 5, 1995 to February 4, 1995. Preparation to meet this submittal continues.

SCOPE	SUBMIT DRAFT TO EPA	SUBMIT TO EPA DRAFT FINAL
Presents the selected remedial action for OU 2 in accordance with CERCLA.	2/4/95	5/29/95

2.7 Pre-Design Field Investigation

Status:

The Project-Specific Plan for Phases I and II of the Operable Unit 2 Pre-Design Field Investigation has been reviewed by U.S. EPA and Ohio EPA. U.S. EPA comments on the Project-Specific Plan were issued on December 6, 1994 and comment resolution began on December 13, 1994. Ohio EPA approval of the Project-Specific Plan was received on December 12, 1994. Verbal approval from U.S. EPA and Ohio EPA to proceed with the field investigation was received on December 5, 1994. Field drilling activities were completed in January and the drilling equipment was demobilized. Sampling of lysimeters, analytical work

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2.7 Pre-Design Field Investigation (continued)

and the K_d Study is continuing. An outline of the report is being prepared to develop an overall strategy to select the most suitable location for the disposal facility. On January 26, 1995 a meeting was held with the EPAs to provide them with a status report on the pre-design investigation.

2.8 Planned Activities for February

- Submittal of the Draft Record of Decision

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3.0 Operable Unit 3

Operable Unit 3 (OU 3), as defined in the Amended Consent Agreement, includes the Production Area and production-associated facilities and equipment (including all above-and below-grade improvements) including all structures, equipment, utilities, drums, tanks, solid waste, waste, product, thorium, effluent lines, K-65 transfer lines, waste water treatment facilities, fire training facilities, scrap metal piles, feed stocks, and coal pile.

3.1 RI/FS Work Plan

Status:

Nothing to report.

Issues/Corrective Actions:

None to report.

3.2 Remedial Investigation/Feasibility Study Report

Status:

An accelerated schedule and revised approach will be applied for the RI/FS process for OU 3. A streamlined and combined RI/FS Report is under development. Significant cost savings will result from the accelerated schedule and revised approach. Sections of the RI/FS Report are currently being developed for internal review and approval. Preliminary COCs and contaminant source terms are under development. One-hundred percent of the chemical field characterization analytical data have been received from the laboratories, validated, and entered into the sitewide environmental database. As of January 20, 1994, 95% of the radiological field characterization analytical data have been received from the off-site laboratories and is undergoing quality control checks and data validation. Initial laboratory studies for determining the leachability of OU 3 remediation wastes (concrete and painted structural steel) were completed. Preliminary results for the leachability of Uranium and technetium have been determined, but additional studies are required to validate these preliminary results. Preliminary draft appendices have been developed for ARARs, off-site waste acceptance criteria, and technologies. Pathways and receptors for evaluation of short-term risks associated with the activities for each alternative were developed to assess risks to occupational workers and the public. This appendix is currently being developed. Volume estimates to calculate the total volume of materials associated with OU 3 were completed and loaded into the SWIFTS database.

Issues/Corrective Actions:

None to Report.

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3.2 Remedial Investigation/Feasibility Study Report (continued)

OPERABLE UNIT 3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY

**PRIMARY
MILESTONES**

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Details the nature and extent of contaminants within the OU 3 study area. Estimates the volume of contaminated media and materials. Characterizes contamination in the former production area. Develops remedial action objectives and describes and analyzes potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	09/11/95 C	12/05/95 C	01/24/96 C

C = Consent Agreement Date

F = Forecast Date

3.3 Treatability Studies

Status:

Activities in January included: received and reviewed the draft test plan from Florida International University to support the Surface Decontamination/Removal of Metal study; completed the EET Decontamination of Transite study field work; collected flat, hastalloy C metal to initiate Phase II testing in support of the Ultrasonic Decontamination of Strategic Metals study; and collected thorium nitrate samples from Tank T2 and placed the NFS Teaming Partner Agreement to support the Thorium Nitrate study. Notice was received that the N-Scan PGNAA PRDA study has been delayed by EM-50.

Issues/Corrective Actions:

None to report.

3.4 Interim Action - Record of Decision

Status:

Complete.

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3.5 Interim Action RD/RA Work Plan

Status:

In response to comments received from U.S. EPA on November 8, 1994 and Ohio EPA on November 17, 1994, the Draft Final RD/RA Work Plan for the Interim Action and the Building 4A Implementation Plan were transmitted to U.S. EPA and Ohio EPA on December 15, 1994. Conditional approval of these documents was received from Ohio EPA on January 20, 1995, pending DOE satisfactorily addressing the one comment provided. U.S. EPA has not yet responded as to the adequacy of these revised documents.

The draft Remedial Design Prioritization and Sequencing Report (PSR) and Material Balance Model (MBM), was revised based on comments received through a site-wide review, which took place from December 31, 1994 to January 13, 1995. The revised draft PSR/MBM was transmitted on January 27, 1995 to DOE-HQ for review. It has been requested that comments on this version of the document be provided no later than February 13, 1995, in order to keep on schedule to meet the submittal date of March 17, 1995 to U.S. EPA/Ohio EPA. This PSR is set up as specified to meet the intent of the Amended Consent Agreement requirement for "a schedule for implementation of the RD/RA tasks and submittal of RD/RA reports." The MBM defines the types of material that will be generated during the interim remedial action, addresses the rate of generation of those material types, and evaluates the impacts of the remedial action schedule to on-property storage availability.

Issues/Corrective Actions:

None to report.

3.6 Planned Activities for February 1995

- Review the draft test plan to be submitted by NFS in support of the thorium nitrate study.
- Complete and route for internal review the draft final report summarizing Chemical Leaching of Concrete study results.
- Continue performing these additional studies: Surface Decontamination/Removal of Metal, Transite Characterization, and the Ultrasonic Decontamination of Strategic Metals. Continue developing the scope of work to support the Recycling of Copper Scrap Metal study.
- Continue writing final treatability reports for the following Treatability Studies: Chemical Leaching of Concrete and the Kelly Decontamination of Concrete.
- Revise the PSR based on comments received.

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3.6 Planned Activities for February 1995 (continued)

- Continue to revise the Implementation Plans for Phase I of the Plant 1 Complex and the External Complex (which consists of the "Outlying Components" of the Pilot Plant design package) based on comments received from U. S. EPA/Ohio EPA on the Building 4A Implementation Plan and agreements reached through the various discussions with U.S. EPA/Ohio EPA. Timing of submittal of either of these Implementation Plans to U.S. EPA/Ohio EPA for review is based on the finalization of budgeting decisions for the near future. If definitized schedules can be agreed upon for either or both of these projects by about mid-February 1995, submittal to U.S. EPA/Ohio EPA could take place in February 1995.
- Finalize development of a fact sheet for the public providing information on the design process, including specific efforts which have been undertaken, and upcoming remedial action activities. Distribution of this fact sheet is expected to occur in mid February.
- Continue planning efforts for a public meeting on RD/RA efforts at the site, with a particular focus on upcoming OU 3 remedial action activities. For OU 3, this briefing will reemphasize some of the same material presented in the fact sheet, and allow the public the opportunity to ask questions about the RD/RA process. This meeting is scheduled for February 21, 1995.
- Undertake any efforts which might be necessary to address possible comments received from U.S. EPA/Ohio EPA on the Draft Final RD/RA Work Plan and the Building 4A Implementation Plan, and to provide a final version of these documents for distribution.

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4.0 Operable Unit 4

Operable Unit 4 (OU 4), as defined in the Amended Consent Agreement, consists of Silos 1, 2, 3, and 4, the silo berms, the Decant Sump Tank System, and soil within the operable unit boundary.

4.1 RI/FS Work Plan

Status:

Complete.

4.2 Remedial Investigation

Status:

Complete.

4.3 Feasibility Study/Proposed Plan

Status:

Complete.

OPERABLE UNIT 4 FEASIBILITY STUDY/PP REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Describes and analyzes potential remedial alternatives. A comparative analysis is performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	09/10/93 C 09/09/93 A	11/10/93 C 11/12/93 A	12/28/93 C 12/21/93 A

C = Consent Agreement Date

A = Actual Date

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4.4 Treatability Studies

4.4.1 Bench Scale Treatability Studies

Status:

Complete.

4.4.2 Pilot Plant Treatability Studies

Status:

The Test Plan will be submitted to the EPA as a Phase II Work Plan attachment in March 1995.

Issues/Corrective Actions:

None to report.

4.5 Record of Decision

Status:

Complete.

4.6 RD Work Plan

Status:

The work plan for the OU 4 Remedial Design was submitted to the U.S. EPA and Ohio EPA on January 26, 1995. The document is currently under review by both agencies.

4.7 Planned Activities for February 1995

- Continue construction of the Phase I Pilot Plant facility.

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5.0 Operable Unit 5

Operable Unit 5 (OU 5), as defined in the Amended Consent Agreement, includes: groundwater, surface water, and soil not included in the definitions of Operable Units 1 through 4, sediment, flora and fauna.

5.1 Remedial Investigation

Status:

In early January, reached consensus on the responses with the commentors on the 27 comments received on the draft final Remedial Investigation (RI) Report in December from the U.S. and Ohio EPAs. Change pages, with instructions for insertion into the 18-volume document, were mailed to all holders of the OU 5 RI Report and Reference Appendices on January 13, 1995. When formal approval of the RI Report is received from EPA, new covers, spines and title pages marked "FINAL" and "February 1995" will be sent to the same distribution.

Issues/Corrective Actions:

None to report.

OPERABLE UNIT 5 REMEDIAL INVESTIGATION REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Details the nature and extent of contaminants within the OU 5 study area. Estimates the volume of contaminated media and materials. Provides a baseline risk assessment and establishes remedial action objectives.	06/24/94 C	09/12/94 C	11/01/94 C 11/01/94 A

C = Consent Agreement Date

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5.2 Feasibility Study/Proposed Plan

Status:

On January 6, DOE received notice from U.S. EPA that the agency was taking a document review extension of two weeks on the OU 5 FS/Proposed Plan. Comments, which were due on January 16, would now be received on January 31. The U.S. EPA forwarded 195 draft comments from their consultant (PRC) on January 13. The Ohio EPA indicated they would submit their comments at the end of January as well. On January 26, approximately 360 draft comments were received from the Ohio EPA. As of January 31, 1995 no formal comments have been received.

In December EPA forwarded a preliminary major comment on Appendix H, the OU 5 Comprehensive Response Action Risk Evaluation, that questioned the approach taken when considering risks posed by background concentrations of contaminants of concern. A conference call among EPA, DOE and FERMCO staff was held on January 4 to discuss this comment, and preliminary consensus on adapting the approach was reached.

Issues/Corrective Actions:

Delay in receipt of agency comments on the FS/Proposed Plan will adversely impact the OU 5 draft Record of Decision (ROD) submittal date of July 3, 1995.

The K_i Sampling Report continues to be delayed by issues involving the radiological analysis by EPI Laboratory. The projected submittal date for the data is February 28, 1995.

OPERABLE UNIT 5 FEASIBILITY STUDY/PP REPORT

PRIMARY MILESTONES

SCOPE	SUBMIT TO EPA	RECEIVE FROM EPA	SUBMIT TO EPA FINAL
Describes and analyses potential remedial alternatives. A comparative analysis will be performed for all alternatives. The Proposed Plan identifies potential remedial alternatives as listed in the FS and presents the preferred alternative to the U.S. EPA and the public.	11/16/94 C 11/16/94 A	01/16/95 C	02/14/95

C = Consent Agreement Date

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5.3 RCRA Monitoring

Status:

Preparation of the RCRA Annual Report continued during the month of January. The report was submitted for internal review January 24, 1995. Activities included: finalizing data entry and validation of the RCRA groundwater samples; preparing graphical presentation of data; and a fact sheet on smectite (grout) intrusion for transmittal to the Ohio EPA.

5.4 Treatability Studies

Treatability activities in support of the OU 5 FS Report have been concluded.

5.5 Planned Activities for February 1995

- Issue covers, spines and title pages for the RI Report to all holders of the document
- Respond to comments from the U.S. and Ohio EPAs on the draft FS and the Proposed Plan and revise the documents in accordance with the comments.
- Begin planning for the public comment period on the OU 5 Proposed Plan.
- Compile final K_i Sampling Report for issuance in February 1995.
- Complete closeout activities related to inventorying and archiving selected soil samples obtained during treatability study activities in early February.

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6.0 Community Relations

Status:

In early January, Jack Craig was appointed director of DOE's Fernald Area Office. Mr. Craig is now responsible for all environmental restoration and decontamination and decommissioning activities at the Fernald site. For the past seven years he has held various technical and managerial positions at Fernald. At the same time, Glenn Griffiths was appointed DOE deputy director of the Fernald site.

A call-in community access phone line is now available for Fernald employees and stakeholders to obtain updated information about Fernald-related public meetings, public involvement activities, and documents available for public inspection or comment. The number for the Community Access Phone Line is 513-648-6272.

On January 4, 1995 the Fernald Envoy Program held its monthly meeting. About 40 envoys attended and were updated on the following:

- Steve Depoe from the University of Cincinnati explained the Consortium for Environmental Risk Evaluation (CERE) that UC is helping to conduct for DOE. The purpose of the program is to gauge the "pulse of public opinion" about Fernald. Focus groups will be held for targeted audiences including: government officials, neighboring residents, employee groups (union and management), and retirees. A draft report of the study should be completed by the end of February.
- Dr. Jerry Jordan, also from UC, spoke about the evaluation of the Fernald Envoy Program that he will be conducting. The basic thrust of this evaluation is to find out if the Envoy Program is working, what can be done to make the Envoy Program better, and how envoys can make good things happen more often.
- A Draft Envoy Reporting Protocol was distributed and discussed. This new reporting protocol was designed to streamline the information flow process from the envoy to his/her group and then the feedback to appropriate DOE/FERMCO management.

On January 11, representatives from the Ohio EPA met with members from the local environmental group, FRESH, and from the Fernald Citizens Task Force to discuss environmental monitoring at the Fernald Environmental Management Project (FEMP). Total attendance was about 20. Some of Ohio EPA's oversight of the FEMP include the adequacy of the environmental monitoring program, supplement to emergency preparedness programs, and to facilitate public and local government understanding of environmental activities.

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6.0 Community Relations (continued)

The Fernald Citizens Task Force's monthly meeting was held January 14, 1995 at the Joint Information Center in Fairfield, Ohio. About 30 people, including the Task Force members, representatives from DOE, U.S. EPA, Ohio EPA, FERMCO and the general public were in attendance. The main topic discussed at this meeting was waste disposal issues. The Task Force intends to make a recommendation on on- or off-site disposal at next month's meeting, which is scheduled for February 18, 1995. Also addressed was the question of allowing wastes from other sites to be disposed of at Fernald. Specifically, the Task Force approved the following motion: "The Fernald Citizens Task Force strongly opposes the use of the Fernald site for the permanent disposal or long-term storage of any waste materials originating from other locations." The Task Force plans to convey this recommendation to DOE, EPA, and Ohio EPA in a letter. The Task Force also agreed to cut its support budget by the same percentage that the site's overall budget is reduced. The Task Force decided that it was important to help with remediation by cutting its budget.

On January 18, approximately 40 people (including several from FRESH and the Task Force) attended the Fernald Dosimetry Reconstruction Project Public Workshop held by the Center for Disease Control (CDC) and the Radiological Assessments Corporation (RAC) at the Sheraton in Springdale. The purpose of the workshop was for the CDC to discuss the National Academy of Sciences' review of the RAC Task 4 Methodology Report; and, to describe how the comments received on the Draft Task 2 and 3 Source Term Report have been addressed in the final report. In addition, representatives from CDC and the Agency for Toxic Substances and Disease Registry (ATSDR) discussed their plans for involving the public in the decision making by creating a Fernald site-specific Health Effects Subcommittee.

On January 18, U.S. EPA verbally approved the Fernald *Community Relations Plan*, and an approval letter has been sent to DOE. Ohio EPA approved the document in December 1994. The revised *Community Relations Plan* outlines how DOE will continue to involve stakeholders in decision making during the design and remediation cleanup phases. Copies of the plan and feedback from community leaders during the 1994 community assessment will be placed in the Public Environmental Information Center (PEIC), 10845 Hamilton-Cleves Highway for public review.

On January 25, 1995, the Fernald Citizens Task Force held a public workshop regarding the disposition of waste at the Fernald site. A roundtable format was used to solicit public involvement and comments. The Task Force was joined in its discussion by invited stakeholders and other members of the community at large. Approximately 75 people attended including members of FRESH, local residents, local government officials, faculty

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6.0 Community Relations (continued)

of the University of Cincinnati, FERMCO, DOE, U.S. EPA and Ohio EPA, and other interested parties. The topics introduced for discussion by Task Force Chair John Applegate included:

- What is the total volume of the waste for which disposition has not been determined?
- What are the disposal options available for this waste?
- What risks are involved in disposing of the waste both on-site and transportation and disposal of the waste off-site?

The public comment period on the Operable Unit 2 Proposed Plan was scheduled from October 26, 1994 to November 25, 1994 with a public meeting on November 8, 1994. The comment period was extended to December 30, 1994 due to a public request and was then extended again to January 20, 1995 based on a second public request. The public comment period formally ended on January 20, 1995. Because of these extensions, the Record of Decision submittal date to EPA was formally changed from January 5, 1995 to February 4, 1995. The Amended Consent Agreement was modified by EPA and DOE to reflect this change. The *Draft Record of Decision for Remedial Actions at Operable Unit 2* will be submitted to EPA and Ohio EPA on February 4, 1995 and will also be available to the public at that time in the Public Environmental Information Center (PEIC). This document will include responses to all public comments received during the public comment period.

The regular monthly meeting of the Fernald Residents for Environmental Safety and Health (FRESH) was held on January 26, 1995 with about 35 in attendance. The current membership of FRESH is 80 people. The DOE-FN Public Information Director's presentation included the following topics:

- Status/updates on the operable units
- Explanation of a new removal action: "Seepage Control at the South Field and Inactive Flyash Pile"
- UNH Project Update
- Federal Facility Compliance Act Proposed Site Treatment Plan status
- Calendar of upcoming events and public involvement activities

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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Remedial Investigations/Feasibility Studies

6.0 Community Relations (continued)

The President of FRESH announced she had written a letter to President Clinton expressing concerns about proposals to cut Fernald's budget and considerations to disband the Department of Energy.

Issues/Corrective Action:

None.

6.1 Planned Activities for February 1995

- The Draft submittal of the OU 2 ROD to U.S.EPA is due on February 4, 1995, pursuant to the Amended Consent Agreement.
- On February 8, the Hamilton County Commissioners will hold a meeting at the Crosby Elementary School starting at 7:00 p.m. to discuss the Public Water Supply.
- On February 15, the Ohio Environmental Protection Agency will hold an availability session with local residents who live near the Fernald site to discuss the environmental monitoring program. The meeting will begin at 7:00 p.m. at the Crosby Elementary School.
- On February 18, the Fernald Citizens Task Force will conduct their monthly meeting at the Joint Information Center in Fairfield, Ohio. The meeting is scheduled from 8:30 - 12:30 and is open to the public.
- On February 21, DOE will conduct a workshop on the Remedial Design and Remedial Action phase of the cleanup. This supports DOE's commitment to the community to continue public involvement during the RD/RA phase. A discussion of upcoming remedial action activities for Operable Unit 3 will be presented. The meeting will start at 7:00 p.m. at the Plantation in Harrison, Ohio.
- The regular monthly of FRESH will be held February 23, 1995 at the Venice Presbyterian Church in Ross, Ohio beginning at 7:30 p.m.

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Remedial Investigations/Feasibility Studies

6.1 Planned Activities for February 1995 (continued)

- The Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry will hold a public meeting to discuss the establishment of a Fernald Health Effects Subcommittee to further involve the Fernald community in their work. The meeting will be held Saturday, February 25, from 10 a.m. to 5 p.m. at the Plantation in Harrison, Ohio.
- The next DOE Community Meeting has been scheduled for March 14, 1995 at the Plantation in Harrison, Ohio.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
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ENCLOSURE A

**WASTE WATER FLOWS AND RADIONUCLIDE
CONCENTRATIONS UNDER CA SECTION XXIII.B**

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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Period Ending January 31, 1995

Introduction

The accompanying Effluent Radiation Reports provide, in accordance with the requirements of Section XXIII.B of the Consent Agreement As Amended under CERCLA Sections 120 and 106 (a), data on the daily waste water flows, radionuclide concentrations, and loadings released to the Great Miami River and an estimate of runoff and radionuclide concentrations to Paddy's Run during January 1995.

Summary - January 1995

The total quantity of uranium discharged from the FEMP to the Great Miami River via Manhole 175 (Outfall 11o00004001) was 8.00 kilograms. The average uranium concentration for the previous 12 months was 0.45 mg/L. This is 50.6% of the Derived Concentration Guide (DOE Order 5400.5) for ingested water.

There was no discharge from the Storm Water Retention Basin Spillway (Outfall 11o00004002) to Paddy's Run via the Storm Sewer Outfall Ditch in January 1995. Based on 3.13 inches of rainfall in January 1995, the total quantity of uranium discharged to Paddy's Run from uncontrolled areas of the FEMP is estimated to be 8.89 kilograms.

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: 11O00004001
001 Total Discharge
Manhole 175 (Effluent to Great Miami River)

DATE: JANUARY 1995

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)	Calculated Total U-238 (pCi/l) (1)
1	0.099	329	392	0.62	0.23	209
2	0.089	293	419	0.62	0.21	209
3	0.133	261	***	0.56	0.28	189
4	0.135	176	***	0.34	0.17	115
5	0.115	216	***	0.47	0.20	159
6	0.084	189	***	0.38	0.12	128
7	0.078	45	***	0.11	0.03	37
8	0.032	77	***	0.12	0.01	41
9	0.065	63	***	0.11	0.03	37
10	0.087	54	***	0.10	0.03	33
11	0.120	81	***	0.10	0.05	34
12	0.227	171	***	0.32	0.27	108
13	0.227	212	***	0.48	0.41	162
14	0.204	266	***	0.50	0.39	169
15	0.210	230	***	0.54	0.43	182
16	0.225	279	***	0.57	0.49	193
17	0.199	***	***	0.56	0.42	189
18	0.214	***	***	0.39	0.32	132
19	0.238	***	***	0.42	0.38	142
20	0.277	***	***	0.48	0.50	162
21	0.221	***	***	0.61	0.51	206
22	0.175	***	***	0.33	0.22	111
23	0.207	***	***	0.58	0.45	196
24	0.211	***	***	0.55	0.44	186
25	0.207	***	***	0.55	0.43	186
26	0.206	***	***	0.54	0.42	182
27	0.172	***	***	0.56	0.36	189
28	0.069	***	***	0.13	0.03	44
29	0.056	***	***	0.16	0.03	54
30	0.101	***	***	0.17	0.06	57
31	0.090	***	***	0.14	0.05	47
Total	4.773				8.00	

000000*** Analytical results not yet available.

000042

**CONSOLIDATED CONSENT AGREEMENT FACILITY
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EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: 001 Total Discharge

DATE: JANUARY 1995

	Flow (MGD)	Total Alpha (pCi/l)(2)	Total Beta (pCi/l)(2)	Total U (mg/l)(2)	Total U (kgs)	Calculated Total U-238 (pCi/l)(1)(2)
Avg.	0.154	91	16	0.44	0.26	150
Max.	0.277	329	419	0.62	0.51	209
Min.	0.032	***	***	0.10	0.01	33

The average uranium concentration for the previous twelve months was 0.45 mg/l. This is 50.6 percent of the Derived Concentration Guide(DOE Order 5400.5) for ingested water.

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

**CONSOLIDATED CONSENT AGREEMENT FACILITY
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EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: 11O00004002
002 Discharge (Overflow) to Storm Sewer Outfall Ditch
Stormwater Retention Basin Spillway (Effluent to Paddy's Run)

DATE: JANUARY 1995

There was no discharge to Paddy's Run from the Stormwater Retention Basin.

Based on 3.13 inches of rainfall for the month, the uranium discharge to Paddy's Run from uncontrolled areas of the FEMP is estimated to be 8.89 kgs.

000044

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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ENCLOSURE B

**FFCA: INITIAL REMEDIAL MEASURES
AND OTHER OPEN ACTIONS**

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

INTRODUCTION

Enclosure B describes actions undertaken at the FEMP during the period January 1, through January 31, 1995 that are not covered by the reporting requirements of the Consent Agreement As Amended under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Sections 120 and 106(a).

WORK ASSIGNMENTS AND PROGRESS

Descriptions of ongoing work progress are presented in the following sections of this report. The status of ongoing work in support of the Federal Facility Compliance Agreement (FFCA) is summarized in Table 1 of Enclosure B. Completed work previously reported upon has been eliminated for the sake of brevity. In this portion of the report and in Table 1, descriptions of actions are presented in a format consistent with that of the FFCA.

**COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND
LIABILITY ACT (CERCLA)**

1. Initial Remedial Measures

Section C

K-65 Silo Project - Status information on the K-65 Silo project normally reported in this section is being provided under Operable Unit 4: Silos 1-4.

2. Remedial Investigation/Feasibility Study (RI/FS)

Status information on the Remedial Investigation/Feasibility Study (RI/FS) normally reported in this section is being provided separately in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).

3. Reports and Record Keeping

Section B

The RI/FS Monthly Technical Progress Report for December 1994 was transmitted to the U.S. EPA on January 19, 1995, as an integral part of the Consolidated Consent Agreement/Federal Facility Compliance Agreement/Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (CA/FFCA/FFA-CARE) Monthly Progress Report in accordance with the requirements of Section X of the Consent Agreement As Amended.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
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Period Ending January 31, 1995

CLEAN AIR ACT (CAA)

Section E

The Quarterly Particulate Emissions Report will now be incorporated into the Annual NESHAP Compliance Report.

RADIATION DISCHARGE INFORMATION

Section A

This information will now be submitted on an annual basis as part of the FEMP Site Environmental Report.

REPORTING REQUIREMENTS

Section B

The Federal Facility Compliance Agreement Monthly Progress Report for December 1994, was transmitted to the U.S. EPA on January 19, 1995 as Enclosure B of the Consolidated Consent Agreement/Federal Facility Compliance Agreement/Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (CA/FFCA/FFA-CARE) Monthly Progress Report.

TABLE 1

**STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS**

January 31, 1995

<u>ACTION</u>	<u>DESCRIPTION</u>	<u>COMPLETION TIME AFTER FFCA SIGNED</u>	<u>FY1995 STATUS</u>
CERCLA			
1.	INITIAL REMEDIAL MEASURES		
1.C	Implement radon control plan approved by the U.S. EPA.	-----	No longer applicable. Progress on actions to address radon emissions from the K-65 Silos are being reported separately under Section IX-Removal Actions of the Consent Agreement/FFCA Monthly Progress Report.
2.	REMEDIAL INVESTIGATION/FEASIBILITY STUDY		No action required.
2.A	RI/FS work is to be conducted in accordance with the U.S. EPA guidelines.	N/A	
2.B	--No Action Required--	-----	Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).
2.E	Amend and submit revised RI/FS Work Plan to U.S. EPA if deficiencies are found.		Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA Sections 120 and 106(a).
2.F	Implement tasks described in the approved RI/FS Work Plan		Status information on the RI/FS is being reported in accordance with the requirements of Section X of the Consent Agreement As Amended under CERCLA sections 120 and 106(a).
3.	REPORTS AND RECORD KEEPING		
3.B	Submit monthly RI/FS progress reports.	monthly	The RI/FS Monthly Progress Report for December 1994 was transmitted to the U.S. EPA on January 19, 1995.

TABLE 1

STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS

January 31, 1995

CLEAN AIR ACT

B.4	Prepare annual progress report installation and replacement of emission control devices.	yearly	The Sixth Annual Progress Report on the installation and replacement of emission control devices was prepared by the Effluent Monitoring and Control Section of the ES&H Division. The report was transmitted to DOE on July 15, 1994.
C.	Provide annual reports to the U.S. EPA per 40 CFR 61.94(c).	yearly	The Annual NESHAP Compliance Report for CY1993 was transmitted to the U.S. EPA on June 10, 1994 (DOE-1907-94).
D.1	Provide U.S. EPA with yearly stack-testing schedule.	yearly	No stacks related to production were operating in 1994. A compliance demonstration was conducted on one CERCLA technology demonstration project, the Minimum Additive Waste program. Due to the permanent shutdown of metals production, resumption of the FFCA Stack Testing Program is unlikely. A proposal is being developed to substitute the NESHAP Subpart H testing/monitoring program for the FFCA Stack Testing. When this proposal is completed it will be formally submitted to U.S. EPA.
D.2	Provide U.S. EPA with stack-test results for stacks tested that year.	45 days	No stacks related to production were operated or tested in 1994.
E.1	Maintain records of monthly particulate matter emissions.	-----	Ongoing.

000049

TABLE 1

**STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON
FEDERAL FACILITY COMPLIANCE AGREEMENT ACTIONS**

January 31, 1995

RCRA

A.1	Conduct a hazardous waste determination on all waste streams.	30 days	Complete. Pursuant to the Proposed Amended Consent Decree, a RCRA waste evaluation was conducted on all identified waste streams pertaining to the PACD.
A.2	Commence a hazardous waste analysis program for materials in the landfill and going to the incinerator.	30 days	Complete. Operation of these units was discontinued and data on the waste which had gone to them was provided in a 30-day FFCA deliverable on August 17, 1986.
A.5	Update the facility closure plan to reflect the year the facility expects to begin closure.	30 days	The Facility closure date is dependent upon closure schedules for individual TSD units as presented most recently in Section I of the RCRA Part B Permit Application transmitted to the Ohio EPA and the U.S. EPA on March 26, 1993 (DOE-1471-93). Facility closure will be completed on a date the last TSD unit is closed.

REPORTING REQUIREMENTS

B.	Issue monthly progress report of actions taken to ensure compliance with FFCA requirements.	monthly	December's FFCA Monthly Progress Report was transmitted to the U.S. EPA on January 19, 1995.
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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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ENCLOSURE C

**FEDERAL FACILITY AGREEMENT:
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS**

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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Period Ending January 31, 1995

Introduction

The Federal Facility Agreement for Control and Abatement of Radon-222 Emissions (FFA-CARE) between the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (U.S. EPA), signed November 19, 1991, requires that a monthly report be submitted to the U.S. EPA regarding all steps undertaken in the preceding month to implement Part V of the agreement and that all data generated as a result of those actions be submitted.

Enclosure C fulfills those requirements by describing steps taken at the FEMP during the period January 1, through January 31, 1995, to implement Part V, Radon-222 Control and Abatement Plan, paragraphs 19-33 of the FFA-CARE.

Work Assignments and Progress

In this section of Enclosure C, action descriptions and work progress are presented in a format consistent with that of the FFA-CARE. Immediately following this section are the K-65 Silos Report and the Selected Radon Data Report. Reporting this data is also a requirement included in the U.S. EPA approved Silos 1 and 2 Removal Action Work Plan (Removal Action No. 4).

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
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<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 19 & 21	Implement the K-65 Silos 1 and 2 Removal Action in accordance with the approved Silos 1 and 2 Removal Action Work Plan.	12/1/91	Completed.
Part V, 20	Reduce radon-222 to a level As-Low-As Reasonably-Achievable (ALARA) with the goal as specified in the Silos 1 and 2 Removal Action Work Plan.	5/22/92	Completed.
Part V, 22	Submit proposed methodology for estimating radon-222 concentration reductions resulting from completion of the Silos 1 and 2 Removal Action.	Within 60 days of completing removal action; 1/27/92.	Completed.
Part V, 23	Evaluate performance of the removal action and determine whether or not additional actions are needed prior to final remediation.	None specified.	Completed.
Part V, 24, 25, and 33	Demonstrate compliance with NESHAP Subpart Q at the completion of final remediation using a methodology approved by the U.S. EPA. Applicable to: Silos 1, 2, and 3; Waste Pits 1, 2, 3, 4, and 5 and the Clearwell; and any newly discovered radon-222 emission sources.	None specified.	No information to report for January 1995.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 26	Directly measure radon-222 flux from Waste Pits 1, 2, 3, 4, and 5 and the Clearwell in the RI/FS under the CERCLA Consent Agreement.	None specified.	Radon sampling is complete for Pits 1, 2, and 3. All measurements were below the criteria set by the U.S. EPA. A final report was issued to the U.S. EPA on 6/25/92. A letter was received from the U.S. EPA on 10/16/92 giving approval of the proposed method for measuring the radon flux from Pit 4. The letter also stated that since the Clearwell is water covered, and Pit 5 is nearly 100% water covered, the flux from Pit 5 and the Clearwell may be assumed to be zero.
Part V, 26	Include direct measurement data from Waste Pits 1, 2, 3, 4, and 5 and the Clearwell in the RI/FS under the CERCLA Consent Agreement.	None specified.	See above.
Part V, 27	Estimate radon-222 emissions from Silo 3 based upon characterization data; include the estimated radon-222 emission data from Silo 3 in the RI/FS that includes Silo 3 under the CERCLA Consent Agreement.	None specified.	Completed.
Part V, 28	Submit documentation or estimates of current radon-222 emissions from existing but newly discovered sources that contain radium-226 in sufficient concentrations to emit radon-222 in excess of NESHAP Subpart Q prior to final remediation.	Within 30 days of discovery.	No new sources identified.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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Period Ending January 31, 1995

<u>FFA Part, Paragraph(s)</u>	<u>Description of Commitment</u>	<u>FFA Due Date</u>	<u>Status of Commitment</u>
Part V, 30	Submit methodology for direct measurement or other appropriate means of characterization of the relevant emissions pursuant to paragraph 29 of the FFA.	Within 45 days of the U.S. EPA response pursuant to paragraph 29.	None required.
Part V, 31	Submit results of measurements pursuant to paragraph 30.	Within 30 days of U.S. EPA approval of characterization method.	None required.
Part VI, 31	Submit monthly report on steps undertaken to implement Part V of the FFA-CARE and the data obtained in the preceding month.	20th day of succeeding month.	The progress report being submitted herewith as an integral part of the CERCLA Consent Agreement Monthly Progress Report.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
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Data Reporting Requirements: RA No. 4: Silos 1 and 2

As defined in the Silos 1 and 2 Removal Action Work Plan and the Federal Facility Agreement, data associated with monitoring the effectiveness of the bentonite installation are included in the following tables: the K-65 Silos Report and the Selected Radon Data Report.

The K-65 Silos Report includes data on the following parameters:

- Ambient temperature and pressure near the silos.
- Silos 1 and 2 headspace temperature.
- Silos 1 and 2 differential pressure.
- Silos 1 and 2 radon headspace concentration.
- Silos 1 and 2 headspace humidity

The Selected Radon Data Report includes radon data from the following locations:

- Air monitoring station number 5 (AMS-5)
- Air monitoring station number 6 (AMS-6)
- Pilot Plant
- Background data
- K-65 Monitoring Data (K-65 NW, K-65 SW, K-65 NE, K-65 SE).

The radon data submitted in Enclosure C: Due to its high source strength, unique measurement methods had to be devised to measure radon emissions from this nonstandard source. The data that has been gathered since 1992 is collected by qualified technicians using detailed procedures. This data although not yet verified, serves as a very good qualitative indicator of the integrity of the bentonite sealant layer covering the residues in the silos. Activities have been initiated to enhance the quality and independently verify the data that is being collected.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/
FEDERAL FACILITY AGREEMENT MONTHLY PROGRESS REPORT**

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398704
Cincinnati, Ohio 45239 Hamilton

K-65 SILO REPORT

LOCATION: Silo # 1

DATE: January 1995

Day	Ambient Temp °F	Press In. Hg.	Temperature Head Space °F	Inter. Hum. %	Diff. Press In. HG	Head Space Radon (pCi/l)
1	33	29.48	43	*	-0.01	283,000
2	18	29.69	43	*	-0.01	241,000
3	19	29.71	41	*	-0.01	348,000
4	9	29.84	40	*	-0.01	345,000
5	7	29.88	39	*	-0.01	688,000
6	23	29.28	38	*	-0.01	1,300,000
7	26	29.33	39	*	-0.01	311,000
8	25	29.61	39	*	-0.01	434,000
9	25	29.69	39	*	-0.01	596,000
10	28	29.63	39	*	-0.01	612,000
11	42	29.41	39	*	0.00	1,290,000
12	60	29.31	40	*	0.00	619,000
13	59	29.38	42	*	0.00	1,110,000
14	54	29.15	43	*	0.00	1,310,000
**15	38	29.26	43	*	0.10	277,000
**16	30	29.51	43	*	0.08	378,000
**17	37	29.52	42	*	-0.02	1,110,000
18	39	29.48	42	*	0.00	994,000
19	43	29.10	42	*	0.01	1,240,000
**20	28	29.06	42	*	0.13	311,000
**21	21	29.26	41	*	n/a	100,000
**22	21	29.35	40	*	0.21	126,000
**23	18	29.43	40	*	0.18	180,000
**24	17	29.65	40	*	n/a	216,000
**25	14	29.73	39	*	0.08	488,000
**26	17	29.74	39	*	0.10	681,000
**27	21	29.54	38	*	0.02	968,000
**28	24	29.34	38	*	0.05	183,000
**29	19	29.53	38	*	0.03	201,000
30	18	29.51	38	*	-0.01	374,000
31	20	29.39	38	*	-0.01	671,000
ARITHMETIC						
MEAN	27	29.48	40	*	0.03	578,097
MAXIMUM	60	29.88	43	*	0.21	1,310,000
MINIMUM	7	29.06	38	*	-0.02	100,000
MEDIAN	24	29.48	40	*	0.00	434,000

Note: * - Silo #1 Relative Humidity was inoperable.

** - Some or all Delta Pressure values were outside of range restrictions.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/
FEDERAL FACILITY AGREEMENT MONTHLY PROGRESS REPORT**

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398704
Cincinnati, Ohio 45239 Hamilton

K-65 SILO REPORT

LOCATION: Silo # 2

DATE: January 1995

Day	Ambient Temp °F	Press In. Hg.	Temperature Head Space °F	Inter. Hum. %	Diff. Press In. HG	Head Space Radon (pCi/l)
1	33	29.48	44	*	-0.01	4,170,000
2	18	29.89	43	*	-0.01	4,010,000
3	19	29.71	42	*	-0.01	4,180,000
4	9	29.84	41	*	-0.01	4,300,000
5	7	29.88	40	*	-0.01	4,620,000
6	23	29.28	40	*	-0.01	4,690,000
7	26	29.33	40	*	-0.01	4,490,000
8	25	29.61	40	*	-0.01	4,410,000
9	25	29.69	40	*	-0.01	4,650,000
10	26	29.63	40	*	-0.01	4,720,000
11	42	29.41	40	*	-0.02	4,830,000
12	60	29.31	41	*	-0.05	4,480,000
13	59	29.38	43	*	-0.01	4,670,000
14	54	29.15	44	*	0.00	4,650,000
**15	38	29.26	44	*	0.14	4,580,000
**16	30	29.51	43	*	0.11	4,330,000
**17	37	29.52	43	*	0.03	4,250,000
18	39	29.48	43	*	-0.01	4,030,000
**19	43	29.10	43	*	-0.02	4,100,000
**20	28	29.06	43	*	0.09	3,830,000
**21	21	29.28	42	*	n/a	3,500,000
**22	21	29.35	41	*	0.20	3,440,000
**23	18	29.43	41	*	0.17	3,820,000
**24	17	29.65	41	*	0.09	3,840,000
**25	14	29.73	40	*	-0.04	4,210,000
**26	17	29.74	40	*	0.00	4,410,000
27	21	29.54	39	*	-0.01	4,620,000
**28	24	29.34	39	*	-0.01	3,950,000
**29	19	29.53	39	*	0.08	4,450,000
**30	18	29.51	39	*	-0.02	4,590,000
31	20	29.89	39	99	-0.01	5,170,000
ARITHMETIC						
MEAN	27	29.48	41	99	0.022	4,321,613
MAXIMUM						
	60	29.88	44	99	0.203	5,170,000
MINIMUM						
	7	29.06	39	99	-0.045	3,440,000
MEDIAN						
	24	29.48	41	99	-0.01	4,410,000

Note: * - Silo #2 Relative Humidity was inoperable.

** - Some or all Delta Pressure values were outside of range restrictions.

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**CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITY COMPLIANCE AGREEMENT
FEDERAL FACILITY AGREEMENT MONTHLY PROGRESS REPORT**

MONTH: JANUARY
YEAR: 1995

FACILITY: Female Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398753
Cincinnati, Ohio 45253 Hamilton

**K-65 SILO REPORT
RADON CONCENTRATIONS
(Daily Summary of Recorded Headspace Concentrations)**

REPORT GENERATED: 02/03/95

Daily Statistics:	SILO 1				SILO 2			
	Average	Maximum	Minimum	Std. Dev.	Average	Maximum	Minimum	Std. Dev.
01/01/95	263,000	1,420,000	40,400	289,000	4,170,000	4,560,000	3,410,000	282,000
01/02/95	241,000	1,120,000	46,800	147,000	4,010,000	4,610,000	3,360,000	296,000
01/03/95	348,000	1,230,000	50,400	250,000	4,180,000	4,590,000	3,430,000	249,000
01/04/95	345,000	809,000	44,600	116,000	4,300,000	4,760,000	3,670,000	235,000
01/05/95	666,000	1,490,000	259,000	304,000	4,620,000	4,990,000	4,010,000	200,000
01/06/95	1,300,000	1,980,000	441,000	415,000	4,690,000	5,070,000	3,360,000	227,000
01/07/95	311,000	1,840,000	53,200	350,000	4,490,000	4,830,000	4,050,000	139,000
01/08/95	434,000	1,500,000	51,100	343,000	4,410,000	4,850,000	3,590,000	252,000
01/09/95	596,000	1,510,000	49,600	371,000	4,650,000	4,940,000	4,180,000	154,000
01/10/95	612,000	1,630,000	47,500	401,000	4,720,000	4,980,000	4,270,000	150,000
01/11/95	1,290,000	1,860,000	441,000	416,000	4,830,000	4,980,000	4,630,000	61,400
01/12/95	619,000	1,770,000	42,500	502,000	4,480,000	4,830,000	3,630,000	233,000
01/13/95	1,110,000	2,910,000	243,000	433,000	4,670,000	4,790,000	4,340,000	74,800
01/14/95	1,310,000	1,790,000	430,000	379,000	4,650,000	4,760,000	4,320,000	55,300
01/15/95	277,000	1,430,000	30,400	306,000	4,560,000	4,720,000	4,280,000	110,000
01/16/95	378,000	1,280,000	43,900	299,000	4,330,000	4,480,000	3,990,000	80,100
01/17/95	1,110,000	4,160,000	305,000	712,000	4,250,000	4,480,000	3,380,000	157,000
01/18/95	994,000	1,690,000	48,200	376,000	4,030,000	4,380,000	2,540,000	338,000
01/19/95	1,240,000	2,080,000	291,000	529,000	4,100,000	4,320,000	2,970,000	199,000
01/20/95	311,000	1,670,000	28,200	350,000	3,830,000	4,340,000	3,180,000	303,000
01/21/95	100,000	238,000	28,900	36,100	3,500,000	3,850,000	3,080,000	138,000
01/22/95	126,000	249,000	27,500	46,000	3,440,000	4,140,000	2,680,000	335,000
01/23/95	180,000	1,200,000	44,600	126,000	3,820,000	4,280,000	737,000	681,000
01/24/95	216,000	1,130,000	43,200	192,000	3,840,000	4,320,000	3,170,000	229,000
01/25/95	488,000	1,580,000	45,400	342,000	4,210,000	4,540,000	3,830,000	146,000
01/26/95	661,000	1,570,000	53,900	374,000	4,410,000	4,790,000	3,830,000	128,000
01/27/95	966,000	1,950,000	51,100	404,000	4,620,000	4,850,000	4,050,000	134,000
01/28/95	183,000	1,510,000	13,200	255,000	3,950,000	4,760,000	3,030,000	409,000
01/29/95	201,000	1,220,000	43,200	184,000	4,450,000	4,880,000	3,810,000	192,000
01/30/95	374,000	1,560,000	86,100	354,000	4,590,000	4,830,000	4,140,000	146,000
01/31/95	671,000	1,680,000	71,800	408,000	5,170,000	5,790,000	3,940,000	433,000

Grab Samples of K-65 Silo Headspace

Date:	SILO 1 Concentration	SILO 2 Concentration
01/09/95	267,000	3,106,000
01/12/95	177,000	3,425,000
01/17/95	297,000	3,109,000
01/19/95	2,699,000	3,521,000
01/26/95	278,000	3,284,000

Notes:

1. All values reported in pCi/L.
2. Continuous data reported to three significant digits to remain consistent with the calibration data.

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CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITIES COMPLIANCE AGREEMENT **FEDERAL FACILITIES AGREEMENT MONTHLY REPORT**

MONTH: JANUARY
 YEAR: 1995

FACILITY: Fernald Environmental Management Project
 U. S. Department of Energy
 7400 Willey Road, P.O. Box 398753
 Cincinnati, Ohio 45253 Hamilton

SELECTED RADON DATA REPORT (Monthly Summary of Selected Sampling Locations)

Daily Averages:	K-65, NW (pCi/L)	K-65, SW (pCi/L)	K-65, NE (pCi/L)	K-65, SE (pCi/L)
01/01/95	0.8	0.9	3.1	1.8
01/02/95	0.9	1.1	4.2	1.7
01/03/95	1.0	1.3	5.2	1.8
01/04/95	0.8	1.1	3.7	2.0
01/05/95	1.8	1.8	7.0	4.1
01/06/95	5.8	3.8	6.0	4.6
01/07/95	0.9	1.0	2.2	2.1
01/08/95	0.8	1.2	1.8	1.2
01/09/95	1.1	2.1	2.3	2.6
01/10/95	1.3	5.9	0.9	0.9
01/11/95	1.8	2.5	1.1	1.1
01/12/95	0.5	0.8	0.5	0.4
01/13/95	1.8	1.0	0.5	0.5
01/14/95	3.0	2.4	1.9	1.8
01/15/95	0.7	0.9	0.8	1.4
01/16/95	1.1	0.9	0.8	1.0
01/17/95	4.5	1.3	1.0	0.8
01/18/95	2.3	8.1	1.4	1.3
01/19/95	3.0	6.3	1.4	1.0
01/20/95	0.7	0.8	3.9	1.4
01/21/95	0.7	0.7	3.1	1.0
01/22/95	0.6	0.7	1.9	0.7
01/23/95	1.0	0.9	1.5	1.3
01/24/95	0.8	1.0	3.3	2.4
01/25/95	1.4	1.9	7.8	6.1
01/26/95	1.8	2.4	10.3	8.9
01/27/95	2.3	7.0	7.3	5.7
01/28/95	0.7	4.0	0.7	0.8
01/29/95	0.7	1.1	0.8	0.8
01/30/95	0.7	0.8	2.4	1.8
01/31/95	1.3	1.4	5.7 (a)	3.7

Monthly Statistics of Daily Averages:	K-65, NW (pCi/L)	K-65, SW (pCi/L)	K-65, NE (pCi/L)	K-65, SE (pCi/L)
AVERAGE:	1.5	2.1	3.0	2.1
MAXIMUM:	5.8	8.1	10.3	8.9
MINIMUM:	0.5	0.6	0.5	0.4
MEDIAN:	1.0	1.2	2.2	1.4
STD. DEV.	1.2	2.0	2.5	1.9

STANDARD LEGEND:

1. "(a)" indicates censored data due to erroneous readings.
2. "(b)" indicates data loss due to monitor malfunction.

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**CONSOLIDATED CONSENT AGREEMENT / FEDERAL FACILITIES COMPLIANCE AGREEMENT
FEDERAL FACILITIES AGREEMENT MONTHLY REPORT**

MONTH: JANUARY
YEAR: 1995

FACILITY: Fernald Environmental Management Project
U. S. Department of Energy
7400 Willey Road, P.O. Box 398753
Cincinnati, Ohio 45253 Hamilton

SELECTED RADON DATA REPORT
(Monthly Summary of Selected Sampling Locations)

Daily Averages:	AMS-5 (pCi/L)	AMS-6 (pCi/L)	PILOT PLANT (pCi/L)	BKGD-1 (pCi/L)	BKGD-2 (pCi/L)
01/01/95	0.5	0.6	n/a (b)	0.5	0.5
01/02/95	0.6	0.6	n/a (b)	0.6	0.4
01/03/95	0.6	0.6	1.5 (b)	0.6	0.5
01/04/95	1.5 (a)	0.9	3.7	0.6	0.4
01/05/95	1.2 (a)	1.1	4.6 (a)	0.6	0.5
01/06/95	1.0	0.9	2.1	0.6	0.5
01/07/95	0.5	0.6	1.3	0.6	0.6
01/08/95	0.5	0.6	1.4	0.5	0.5
01/09/95	0.7 (a)	0.7 (a)	1.5 (a)	0.6	0.5
01/10/95	0.6	0.7	1.5	0.6	0.6
01/11/95	0.6	0.7	1.1	0.6	0.6
01/12/95	0.3	0.4	0.6	0.4	0.4
01/13/95	0.3	0.4	0.6	0.4	0.4
01/14/95	0.6	0.6	0.9	0.5	0.5
01/15/95	0.4	0.4	1.0	0.5	0.4
01/16/95	0.3	0.4	1.0	0.4	0.3
01/17/95	0.4	0.4	1.0	0.4	0.4
01/18/95	0.7	0.6	1.1	0.5	0.7
01/19/95	0.5	0.6	1.0	0.5	0.5
01/20/95	0.4	0.5	1.1	0.4	0.3
01/21/95	0.4	0.5	1.4	0.5	0.4
01/22/95	0.4	0.5	1.5	0.5	0.3
01/23/95	0.5	0.5	1.5	0.5	0.4
01/24/95	0.7	0.6	1.6	0.5	0.4
01/25/95	2.1	1.1	3.2	0.8	0.7
01/26/95	1.1	1.0	3.0	0.7	0.6
01/27/95	0.9	1.1	2.3	0.8	0.6
01/28/95	0.4	0.6	1.3	0.4	0.4
01/29/95	0.5	0.5	1.6	0.5	0.5
01/30/95	0.6	0.6	1.8	0.4	0.5
01/31/95	1.0	0.8	2.8	0.5	1.3 (b)

Monthly Statistics of Daily Averages:	AMS-5 (pCi/L)	AMS-6 (pCi/L)	PILOT PLANT (pCi/L)	BKGD-1 (pCi/L)	BKGD-2 (pCi/L)
AVERAGE:	0.7	0.7	1.7	0.5	0.5
MAXIMUM:	2.1	1.1	4.6	0.8	1.3
MINIMUM:	0.3	0.4	0.6	0.4	0.3
MEDIAN:	0.6	0.6	1.5	0.5	0.5
STD. DEV.	0.4	0.2	0.9	0.1	0.2

STANDARD LEGEND: 1. "(n)" indicates censored data due to erroneous readings.
2. "(b)" indicates data loss due to monitor malfunction.

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**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

PERIOD ENDING JANUARY 31, 1995

ENCLOSURE D

EFFLUENT RADIATION DISCHARGES TO THE GREAT MIAMI RIVER

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

Introduction

Enclosure D lists monthly discharges to the Great Miami River. This information is required by the DOE/U.S. EPA Agreement Resolving Dispute Concerning Denial of Request for Extension of Time to Submit Operable Unit 2 Document and discussed in the "Addendum No. 1 to the South Groundwater Contamination Plume Removal Action Parts 2 and 3 Work Plan."

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP1]
IAWWT - T108 (SWRB) Discharge
Interim Advanced Wastewater Treatment Effluent

DATE: DECEMBER 1994

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (MIN) (S.U.)	pH (MAX) (S.U.)
1	0.211	0.9	5.0 <	1.0	0.0008	1.4	8.0	8.1
2	0.211	***	***	1.6	0.0013	2.2	8.0	8.1
3	0.209	***	***	1.6	0.0013	2.4	8.0	8.1
4	0.187	***	***	1.6	0.0011	2.0	8.1	8.3
5	0.000							
6	0.050	***	***	2.8	0.0005	1.8	7.9	8.2
7	0.149	***	***	1.9	0.0011 <	1.0	7.7	8.1
8	0.190	***	***	1.9	0.0014	2.9	7.7	7.9
9	0.174	***	***	2.1	0.0014	1.6	7.9	8.0
10	0.179	***	***	1.5	0.0010	1.8	7.7	7.9
11	0.209	***	***	< 1.0	0.0008 <	1.0	7.7	7.8
12	0.200	***	***	2.9	0.0022	1.2	7.7	7.9
13	0.207	***	***	3.4	0.0027	2.2	7.6	7.8
14	0.209	***	***	1.8	0.0014	6.2	7.7	7.8
15	0.200	***	***	4.9	0.0037	4.0	7.5	8.0
16	0.228	***	***	5.7	0.0049	2.8	7.6	8.0
17	0.147	***	***	1.7	0.0009	1.0	7.6	7.9
18	0.076	***	***	1.9	0.0005	2.0	7.7	7.9
19	0.000							
20	0.000							
21	0.000							
22	0.081	***	***	1.7	0.0004	3.4	7.4	8.1
23	0.176	***	***	1.0	0.0007	2.2	7.4	7.9
24	0.097	***	***	10.8	0.0040	4.2	7.8	8.1
25	0.004	***	***	4.9	0.0001	2.8	7.8	8.3
26	0.000							
27	0.000							
28	0.000							
29	0.000							
30	0.000							
31	0.000							
Total	3.374				0.0321			

*** Analytical results not yet available.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP1] IAWWT - T108

DATE: DECEMBER 1994

	<u>Flow (MGD)</u>	<u>Total Alpha(2) (pCi/l)</u>	<u>Total Beta(2) (pCi/l)</u>	<u>Total U (ug/l)(2)</u>	<u>Total U (kgs)</u>
Avg.	0.109	0.1	0.3	2.5	0.0015
Max.	0.228	0.9	5.0	10.8	0.0049
Min.	0.000	0.9	5.0 <	1.0	0.0001

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP1]
IAWWT - T109 (SWRB) Discharge
Interim Advanced Wastewater Treatment Effluent

DATE: DECEMBER 1994

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (MIN) (S.U.)	pH (MAX) (S.U.)
1	0.185	1.4	5.0	1.3	0.0009	1.4	8.0	8.1
2	0.183	***	***	1.8	0.0012	1.8	8.0	8.1
3	0.198	***	***	1.9	0.0014	1.2	8.0	8.1
4	0.190	***	***	1.9	0.0014	2.0	8.1	8.3
5	0.000							
6	0.052	***	***	2.7	0.0005	2.2	7.9	8.2
7	0.149	***	***	1.9	0.0011	1.0	7.7	8.1
8	0.193	***	***	2.0	0.0015	2.6	7.7	7.9
9	0.184	***	***	2.6	0.0018	1.6	7.9	8.0
10	0.188	***	***	2.0	0.0014	1.0	7.7	7.9
11	0.174	***	***	1.0	0.0007	1.0	7.7	7.8
12	0.178	***	***	4.8	0.0032	1.4	7.7	7.9
13	0.205	***	***	4.3	0.0033	2.6	7.6	7.8
14	0.195	***	***	1.6	0.0012	4.0	7.7	7.8
15	0.185	***	***	5.1	0.0036	3.6	7.5	8.0
16	0.201	***	***	1.4	0.0011	2.8	7.6	8.0
17	0.127	***	***	1.9	0.0009	1.2	7.6	7.9
18	0.072	***	***	2.1	0.0006	1.6	7.7	7.9
19	0.000							
20	0.000							
21	0.000							
22	0.053	***	***	1.0	0.0002	2.4	7.4	8.1
23	0.150	***	***	1.1	0.0006	1.6	7.4	7.9
24	0.083	***	***	1.2	0.0004	3.8	7.8	8.1
25	0.006	***	***	2.5	0.0001	2.6	7.8	8.3
26	0.000							
27	0.000							
28	0.000							
29	0.000							
30	0.000							
31	0.000							
Total	3.151				0.0270			

*** Analytical results not yet available.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP1] IAWWT - T109

DATE: DECEMBER 1994

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	0.102	0.1	0.3	2.3	0.0013
Max.	0.205	1.4	5.0	5.1	0.0036
Min.	0.000	1.4	5.0	1.0	0.0001

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [606]
SWRB Pump Station Discharge
Stormwater Retention Basin Effluent

DATE: DECEMBER 1994

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)
1	0.396	306	86	0.42	0.63
2	0.394	221	113	0.41	0.61
3	0.407	180	104	0.42	0.65
4	0.377	203	86	0.42	0.60
5	0.000				
6	0.102	365	198	0.55	0.21
7	0.658	212	108	0.36	0.90
8	0.778	360	86	0.56	1.65
9	1.748	306	126	0.52	3.44
10	2.038	320	122	0.50	3.86
11	2.035	356	171	0.52	4.01
12	1.249	405	158	0.64	3.03
13	0.412	387	135	0.49	0.76
14	0.404	248	162	0.45	0.69
15	0.385	252	144	0.47	0.68
16	1.378	284	158	0.51	2.66
17	2.018	279	149	0.54	4.12
18	0.426	320	144	0.54	0.87
19	0.000				
20	0.000				
21	0.000				
22	0.114	266	113	0.43	0.19
23	0.326	306	68	0.49	0.60
24	0.180	270	158	0.51	0.35
25	0.424	266	95	0.44	0.71
26	0.000				
27	0.962	248	81	0.45	1.64
28	0.492	248	86	0.44	0.82
29	0.000				
30	0.000				
31	0.000				
	17.703				33.67

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: (606) SWRB

DATE: DECEMBER 1994

	<u>Flow (MGD)</u>	<u>Total Alpha(2) (pCi/l)</u>	<u>Total Beta(2) (pCi/l)</u>	<u>Total U (mg/l)(2)</u>	<u>Total U (kgs)</u>
Avg.	0.571	301	130	0.50	1.48
Max.	2.038	405	198	0.64	4.12
Min.	0.000	180	68	0.36	0.19

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [605]
Biodenitrification Tower
BDN Tower Effluent

DATE: DECEMBER 1994

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (mg/l)	Total U (kgs)
1	0.077	446	946	0.93	0.27
2	0.123	586	1081	1.10	0.51
3	0.115	450	766	0.79	0.34
4	0.119	288	586	0.75	0.34
5	0.072	176	396	0.43	0.12
6	0.067	27	104	0.07	0.02
7	0.052	586	1171	2.70	0.53
8	0.065	198	541	0.50	0.12
9	0.113	541	1261	1.40	0.60
10	0.130	324	676	0.80	0.39
11	0.126	495	1171	1.40	0.67
12	0.126	356	766	0.88	0.42
13	0.118	387	586	0.80	0.36
14	0.133	374	631	0.90	0.45
15	0.095	329	631	0.90	0.32
16	0.126	450	586	0.90	0.43
17	0.075	347	541	0.80	0.23
18	0.116	369	631	0.80	0.35
19	0.107	360	450	0.80	0.32
20	0.109	392	631	0.78	0.32
21	0.138	338	441	0.80	0.42
22	0.165	414	541	0.80	0.50
23	0.106	450	586	0.80	0.32
24	0.101	432	541	0.80	0.31
25	0.100	419	541	0.80	0.30
26	0.110	432	541	0.80	0.33
27	0.112	396	541	0.90	0.38
28	0.107	495	676	1.00	0.40
29	0.104	676	856	1.50	0.59
30	0.105	495	541	0.90	0.36
31	0.106	441	495	0.90	0.36
Total	3.318				11.40

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: (605) BDNETS

DATE: DECEMBER 1994

	<u>Flow</u> <u>(MGD)</u>	<u>Total</u> <u>Alpha(2)</u> <u>(pCi/l)</u>	<u>Total</u> <u>Beta(2)</u> <u>(pCi/l)</u>	<u>Total U</u> <u>(mg/l)(2)</u>	<u>Total U</u> <u>(kgs)</u>
Avg.	0.107	409	663	0.91	0.37
Max.	0.165	676	1261	2.70	0.67
Min.	0.052	27	104	0.07	0.02

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [605]
Biodenitrification Tower
BDN Tower Effluent

DATE: DECEMBER 1994

Day	C-BOD5 (mg/l)	TSS (mg/l)	NH3-N (mg/l)	NO3-N (mg/l)	Chromium (ug/l)	Copper (ug/l)	Nickel (ug/l)	Hex-Chrom (ug/l)
1								
2								
3								
4		5	0.71	9.5 <	6.0 <	14.0 <	17.0 <	6.0
5								
6	2.84							
7								
8								
9								
10								
11								
12		4	1.38	9.3 <	6.0 <	14.0 <	17.0 <	6.0
13	2.76							
14								
15								
16								
17								
18								
19								
20	<	2	2.10	10.7 <	6.0 <	14.0 <	17.0 <	6.0
21	5.10							
22								
23								
24								
25								
26								
27								
28	1.90 <	2	1.31	11.3 <	6.0 <	14.0 <	17.0 <	6.0
29								
30								
31								

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP2]
Stormwater Retention Basin Emergency Bypass
SWRB Bypass Effluent

DATE: DECEMBER 1994

Day	Flow (MGD)
1	0.000
2	0.000
3	0.000
4	0.000
5	0.000
6	0.000
7	0.360
8	0.395
9	1.390
10	1.671
11	1.652
12	0.871
13	0.000
14	0.000
15	0.000
16	0.949
17	1.744
18	0.278
19	0.000
20	0.000
21	0.000
22	0.000
23	0.000
24	0.000
25	0.414
26	0.000
27	0.962
28	0.492
29	0.000
30	0.000
31	0.000

Total 11.178

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: Valve House
South Groundwater Contamination Plume

DATE: DECEMBER 1994

Day	Flow (MGD)	Total U (ug/l)	Total U (kgs)
1	1.503	9.9	0.06
2	1.380	10.7	0.06
3	1.527	10.7	0.06
4	1.489	10.6	0.06
5	1.315	11.6	0.06
6	0.000		
7	1.020	10.9	0.04
8	1.135	10.8	0.05
9	1.462	10.3	0.06
10	1.562	10.6	0.06
11	1.329	10.4	0.05
12	1.522	10.4	0.06
13	1.694	11.8	0.08
14	1.423	10.6	0.06
15	1.214	10.6	0.05
16	1.482	10.4	0.06
17	1.384	10.8	0.06
18	1.533	10.6	0.06
19	1.362	10.6	0.05
20	1.407	10.6	0.06
21	1.718	11.9	0.08
22	1.266	7.5	0.04
23	1.921	7.5	0.05
24	0.925	11.2	0.04
25	1.474	11.0	0.06
26	1.438	11.0	0.06
27	1.487	12.8	0.07
28	1.405	10.6	0.06
29	0.280	10.6	0.01
30	0.000		
31	0.000		
Total	38.637		1.55

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: South Plume

DATE: DECEMBER 1994

	<u>Flow</u> <u>(MGD)</u>	<u>Total U</u> <u>(ug/l)(2)</u>	<u>Total U</u> <u>(kgs)</u>
Avg.	1.246	10.6	0.06
Max.	1.921	12.8	0.08
Min.	0.000	7.5	0.01

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O. Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP3]
Valve House
South Plume/Stormwater Retention Basin *

DATE: DECEMBER 1994

Day	Flow (MGD)	Total Alpha (pCi/l)	Total Beta (pCi/l)	Total U (ug/l)	Total U (kgs)	TSS (mg/l)	pH (Grab) (S.U.)
1	1.899	13.5 <	72.1	27	0.19	1.8	7.5
2	1.754	9.0 <	72.1	28	0.19		7.6
3	1.934	9.0 <	72.1	26	0.19		7.3
4	1.866	9.0 <	72.1	25	0.18		7.3
5	1.315 <	9.0 <	72.1	15	0.07		7.6
6	0.102	22.5 <	72.1	32	0.01		7.4
7	1.678	49.5 <	72.1	110	0.70		7.4
8	1.913	45.0 <	72.1	97	0.70	3.8	7.5
9	3.210	148.6 <	72.1	230	2.79		7.5
10	3.800	166.7 <	72.1	260	3.54		7.5
11	3.364	148.6 <	72.1	290	3.69		7.6
12	2.771	144.1	85.6	200	2.10		7.5
13	2.106	18.0 <	72.1	33	0.26		7.4
14	1.827	18.0 <	72.1	30	0.21		7.5
15	1.599	13.5 <	72.1	33	0.20	7.2	7.4
16	2.860	54.1 <	72.1	130	1.41		7.4
17	3.402	171.2 <	72.1	280	3.61		7.7
18	1.959	58.6 <	72.1	150	1.11		7.4
19	1.362 <	9.0 <	72.1	17	0.09		7.6
20	1.407	9.0 <	72.1	8	0.04		7.3
21	1.718 <	9.0 <	72.1	8	0.04		7.5
22	1.380	9.0 <	72.1	17	0.09	2.8	7.5
23	2.247	27.0 <	72.1	38	0.31		7.4
24	1.105	18.0 <	72.1	29	0.12		7.4
25	1.898	54.1 <	72.1	80	0.57		7.3
26	1.438	90.1 <	72.1	200	1.09		7.8
27	2.449	112.6	81.1	200	1.85		7.6
28	1.897	67.6 <	72.1	130	0.93		7.5
29 ***	0.280	70.1	72.8	123	0.13		7.5
30	0.000						
31	0.000						
Total	56.340				26.43		

* Effective 3/11/94, the SWRB discharges were combined with the South Plume.

*** No sample collected; monthly average values presented.

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**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT RADIATION REPORT (cont.)

FACILITY: Fernald Environmental Management Project

LOCATION: [SP3] Valve House

DATE: DECEMBER 1994

	Flow (MGD)	Total Alpha(2) (pCi/l)	Total Beta(2) (pCi/l)	Total U (ug/l)(2)	Total U (kgs)
Avg.	1.817	70.4	73.1	124	0.91
Max.	3.600	171.2	85.6	290	3.69
Min.	0.000 <	9.0 <	72.1	6	0.01

Comments: (1) The activity of this discharge has been and will continue to be reported as Uranium-238 (pCi/l) in accordance with the Ohio EPA format for reporting uranium. Since this does not account for the activity of the other uranium isotopes in the effluent, the total uranium data is also presented. The calculated total U-238 is based on a conversion factor of 337.84 pCi U-238/mg Total U applied to the measured value of total uranium.

(2) Average values presented are flow-weighted.

**CONSOLIDATED CONSENT AGREEMENT FACILITY
COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT FOR
CONTROL AND ABATEMENT OF RADON-222 EMISSIONS
MONTHLY PROGRESS REPORT**

Period Ending January 31, 1995

EFFLUENT REPORT

FACILITY: Fernald Environmental Management Project
U.S. Department of Energy
7400 Willey Road, P.O.Box 398705
Cincinnati, Ohio 45239-8705
9002 M 9501 900212

LOCATION: [SP4]
Parshall Flume
Effluent Downstream of Manhole 176B

DATE: DECEMBER 1994

Day	DO (mg/l)	IRON (mg/l)	MANGANESE (mg/l)
1	10.6	0.78	0.2
2			
3			
4			
5			
6			
7			
8	10.4	0.55	0.1
9			
10			
11			
12			
13			
14			
15	7.2	0.67	0.1
16			
17			
18			
19			
20			
21			
22	9.8	0.67	0.2
23			
24			
25			
26			
27			
28			
29	***	***	***
30			
31			

*** No sample collected.

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